UNIVAC Users Meet

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COMPUTERWORLD

The Newsweekly for the Computer Community

How To Fire!!

See Page 7

Vol. I NO. 7 CAMBRIDGE, MASSACHUSETTS SEPTEMBER 27, 1967 25 cents

IBM Asks Quick Cash As Lessees Buy

Millions In Float

IBM is to change the terms under which people leasing IBM equipment can purchase it. Under the new rules-effective on October 1st - a check for the full purchase price must accompany the notification which the lessee gives to IBM.

Multi-million Accounts Receivable

The reason for the change is believed to be the size of the accounts receivable floating with IBM. In the past the money due was not in fact paid until after IBM had invoiced the buyer. This was in some cases seriously delayed - and in the meantime the buyer had the use of the systems.

With the recent growth in leaseback arrangements, the amount of money owing to IBM on this account was large, and was growing.

The IBM solution, while classic in its simplicity, poses some problems for leasing firms, and perhaps for lawyers. Many leasing firms have been effectively using this period as additional capital - and will now have to adjust to doing without it. Questions of exactly when the title passes, insurance, etc. may be affected. In any case, some doubt as to the implication of the move is presently being expressed by the leasing industry.

Rumor Mill

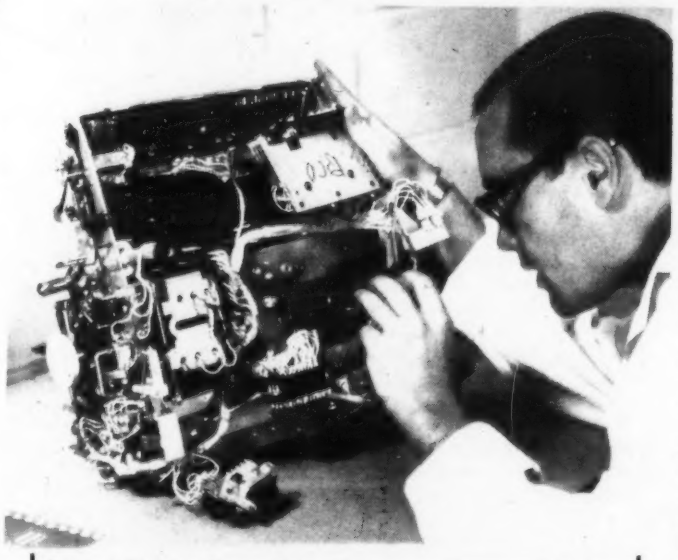
Who was the manufacturer who posed the Air Force Phase II evaluation team a problem by running one of their jobs FASTER under the multi-programming mode than under the stand-alone system?

Has IBM pressured Dick Pratt to stop numbering his famous series of "Problems with 360" . . . or was it just the number of problems he found? (His latest set of problems are dated – rather than numbered from the 233 he has already found).

Will the Burroughs/Friden feud over the original Phase II benchmark go beyond the current name-calling and 'letters to the editor' sphere? If so, perhaps someone will explain just how 7311's which were not at the bench- COULD have operated "in an oth satisfactory manner during ench- k tests". Or weren't they to have been there?

Independent Service Offered For Peripherals, Remotes

G.E. OPENS UP NEW MARKET FRONT



General Electric Service Shops Department technician is shown servicing an input—output printer.

Offers Service Facilities For Users And Suppliers

Sept. 21 – The giant G.E. Company, entered the area of computer-room servicing today with the announcement a chain of service shops. The new Instrumentation and Control Service Business Section of G.E. will handle the servicing of computer components and associated electronic data-processing equipment outside the central computer itself. The company believes there is a major market for the new service shops, and that computer users who are purchasing equipment from manufacturers other than their prime computer manufacturer will welcome the possibility of getting single-stop service.

In fact, this operation has been going on for some six months in New Jersey and three or four months in Los Angeles. Mr. Van Dyck, who is he general manager of G.E. Service Shops told COMPUTERWORLD that they had very good effects in servicing equipment like teletypes at these locations. IBM itself has been using G.E.'s servicing facilities for some time.

Mr. Van Dyck said that such servicing is essential for good performance in today's industrial plants, business houses, and educational and medical institutions, and that maintenance problems could be designed to keep lost-production and processing time at a minimum. Pointing out that his operation is moving ahead with new skills and facilities to meet this challenge, he was joined by Robert Hirsch, who heads the new business section.

The company intends to offer a number of different services. These include:-

Providing service direct to users. A typical example would be a time-sharing user purchasing his teletype direct from Teletype Corporation, rather than through the Bell system. At present Bell does not service such equipment (which leaves the user trying to save a buck in something of a hole) - but GE now will!

Providing service to organizations which do not have adequate service facilities themselves. If little XYZ Corp. has a magnificent printer it still needs servicing. At present they can only rely on their own service forces and these do not cover the country very effectively. So they can only market in a small geographical area. GE now will offer them service contracts to provide country-wide service facilities.

IBM-COMPAT TAPES DRIVES SHOWN ACROSS NATION

Prospects See MAI Units

Management Assistance started demonstrating its 7200 series of magnetic tape drives today, with simultaneous openings in New York, Chicago and Los Angeles. The tape drives, which are offered as being plug-for-plug replacements for IBM 729 and 2401 units, use a vacuum capstan drive, and a different threading technique but are functionally compatible with IBM hardware and software. MAI is offering them at between 40-60% of the IBM unit prices, and is also offering service contracts which are priced below IBM's for prime shift maintenance.

The tape drives are being manufactured by Potter Instruments Inc.

At the New York showing, the interest appeared to be concentrated in the physical tape path used. The MAI unit holds the tape so that the oxide surface does not come into contact with the outside walls of the vacuum chambers. Attention was also given to the question of the rewind speed. This is slower on the MAI unit than on the IBM units; but the MAI engineers pointed out that it was more reliable, in that it gave a uniform winding on the reel.

The demonstrations showed the drives being exercised, but not directly connected to the computer. Technical data is shown on Page 5.

Air Force Official Resigns

Nielson Replaces Marks In EDP Post

Leomard Marks, Jr. has resigned as Assistant Air Force Secretary for Finance Management. Mr. Marks was directly connected with the Phase II award, which was upset by the Controller General's ruling. His resignation, effective December 31, 1967, will probably keep him out of any arguments following the renewal of the contract due in January, 1968.

President Johnson intends to nominate Thomas H. Nielsen to the post held by Marks since 1964. Nielson, who is 37, is President of the California Land Company, and Executive Vice President of White Investment Company. He holds degrees from the University of Washington and Stanford University.

Among the responsibilities of the Assistant Air Force Secretary is the procurement of Air Force EDP equipment.

Low-Cost MICR Unit From IBM

WHITE PLAINS, N.Y., Sept. 20 -- The low-cost 600 document-a-minute Lundy reader/sorter for MICR banking applications was added to IBM's product line today. The unit will operate on-line with IBM System/360 Models 20, 30 and 40. This usage differs from the off-line Lundy unit presently available from National Cash Register Corporation. The reader/sorter will be demonstrated with a Model 20 at the American Bankers Association annual convention in New York City, September 24 - 27 at the Americana Hotel.

NCR 404, the off-line unit currently available, is manufactured under an exclusive rights arrangement between Lundy and NCR. The IBM arrangement with Lundy for the new on-line version is not exclusive, and it is expected that NCR will introduce a reader/sorter on-line with the NCR 315 computer in the near future.

IBM has numbered the new reader/sorter "1259" and it reads and sorts checks into 11 pockets at a rate of up to 600 a minute. It also can handle deposit slips and other bank documents that conform to ABA magnetic ink standards.

Connected to a Model 20 a user will be able to use either a modified form of the present 1419 support on card systems, or simply the IOCS on Tape or Disk systems. On Models 30 and up the support will be provided within the Disk Operating System.

CONTINUED ON PAGE 5

G.E., USER LAWSUITS

In a gentlemen's agreement over mutual liabilities GE and Spring Mills Inc., of South Carolina have taken their respective cases to court.

The problem lies in the time taken to completely convert some programs onto the new system. The time actually taken was greater than the time allowed for in the contract. However, GE believes that Spring Mills failed to co-operate properly during the conversion.

The suits are respectively for $3 million (against GE), $1.2 million (against Spring Mills) and in addition Spring Mills is asking the courts to bar GE from removing the system.

Through The Service Entrance

One of the great mysteries of computer development in the United States has always been the comparatively poor showing of General Electric Company. This great industrial giant until recently was using more of its competitors' machines than of its own! Now, in process control, and in time-sharing, it is showing some shadow of its real basic power. And with a slight switch of one of its other divisions, the sleeping giant may have awoken to an extremely important part in computerdom.

The new set of Service Centers offered to support E. D. P. equipment throughout this country may change the whole shape of buying computer systems. They do not presently involve themselves with central frames. These after all are not the major problem nowadays. They do, however, involve themselves with the peripherals--and this may release many small and valuable peripheral firms from the impossible job of trying to handle wide-spread service. In this case, the winner must inevitably be the user. He gets more choice.

Welcome G. E. -- even if you are sidling in through the service entrance!

Damn Turing's Test!

In 1950 a genius named Turing invented Turing's Test to answer the question "Can machines think?". Everything on the test was designed to favor the machine's anonymity -- machine and subject were separated by rooms, conversation was by teletype, and so on -- and all the machine had to do was successfully convince the human that it was not a machine. In this simple, subtle, and now generally accepted test lay one of the computer's greatest dangers.

The test was based on the idea that a machine, to be "successful", had to REPLACE a human.

Surely machines can be successful by partnering humans!

Ever since this opportunity to bring out the difference between replacement and partnership was so tragically missed, computer people have remained happy in the idea that they understand the problem of thinking-machines, and lay people continue to confuse the issue. issue.

The latest example was the NEW YORK TIMES' headline, "Computers Flunk A Test".

Dealing with some months-old report of difficulties--in--translation problems -- French to Japanese, etc. -- the article arrived at the conclusion that a machine which could produce writing indistinguishable from human writing was not yet here. This is true, but, as readers of this newspaper know, machine translation as an AID to human beings is here. In our August 30th issue, part of a headline was written in Vietnamese, and our readers were able to translate it by means of a computer print--out.

Successful computers aid, but do not replace, human beings, and computers don't flunk tests because they are distinguishable from their human masters.

A. M. Turing was a genius. It is a pity he did not live long enough to have cleared this matter up.

COMPUTERWORLD

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Letters To The Editor

To the Editor:

I have been very impressed with the initial copies of COMPUTERWORLD.

Your editorial "IBM Is Just Another Vendor" was very interesting. We installed a 360/30 in May, 1966, and your comments about delivery and software were particularly applicable in our instance as we were converting from 1401 to 360 without the compatibility feature. Delays in delivery of both hardware and software were our greatest problems. I like very much the suggestion of a "pressure" group.

Also, you suggested sending copies of COMPUTERWORLD for use by DPMA chapters. As president of the Mobile Chapter, I would be very happy to distribute copies at our next meeting. We normally average around 50 people at the meetings.

Congratulations on a very informative newspaper.

R.M. Farris
Assistant Controller
First National Bank
Mobile, Alabama

Delighted to send you some copies for distribution, and thank you for your comments. We would naturally like to have the suggestions of your members as to what they want to see -- and of course their new items. *Ed.*

To the Editor:

Please enter my subscription to "COMPUTERWORLD" starting with Vol. I, No. I (read No. 3 today -- it is great!)

George H. Dalton
Honeywell EDP
4650 E. 50 Highway
Kansas City, Missouri 64130

To the Editor:

We have received several issues of COMPUTERWORLD, and the members of our Systems and Data processing Division think it is a good publication and would like to continue receiving it.

I cannot recall our having subscribed to COMPUTERWORLD as such. Please let me know if the subscription is in conjunction with a membership or another subscription.

Miriam E. Bennett
Secretary to Ray Gilbreath
Manager, Systems & D. P.
Division

We are sending you a few subscription forms -- company mailing lists being what they are, some of your people may prefer individual subscriptions. As regards the fact that you have been receiving it -- well, these have been publicity copies distributed through the country's installations. There will be a few more coming around -- but not a continuous supply! COMPUTERWORLD is a PAID circulation paper, and only by subscribing can you get continous service. *Ed.*

We are sorry -- but some of our back issues are already OUT OF STOCK!
Generally we can supply quantities of THE CURRENT ISSUE ONLY
Orders for copies of specific issues should be sent to COMPUTER WORLD, BOX 324 Cambridge, Mass. 02138
Price: Current issue 25¢ each
Back issues $1.00 each

Bugs Of Expo 67

PART 2 OF 2 PARTS

In Part 1 COMPUTERWORLD discussed the overall bad press of the computers in Expo 67, and the problems of Logexpo in detail. This part shows the problems of Reservoexpo, and Operations Control. The article concludes by tracing the bugs in the system to the people concerned! (The computers actually DID perform properly!)

COMPUTERWORLD'S Editor went to Expo '67 to look for computer bugs. He found the worst one at the turnstiles -- not in the computer rooms!

Reserve Expo

Reservexpo was based on two fallacies. 1.) That a system including people as its prime customers is suitable for step-by-step implementation. 2.) that a building that is designed without special considerations can naturally take a computer system environment.

Lines Liked!

The idea of Reservexpo was that they would put four of the twenty-two theaters in the system and then build up slowly. This was not publicised, however, and visitors expected it to have ALL the shows. The result of having only four theaters in the system was that there were not anywhere near enough seats. What was expected to be a simple operators problem, - someone walks up, asks for a seat the inquiry is handled, the person is given or not given a seat - degenerated into one to two hour queues, many persons thick. These appeared at all the booths, which wasn't the idea. Of course, it was suggested that more seats be made available - but the private operators of the theaters LIKED having queues outside their pavilion. It showed how popular they were - and acted as a magnet to bring people in. So they weren't interested in Reservexpo avoiding them.

After The Show...

Another item came up as well as the scarcity of seats. This was connected with the design of the buildings. The most popular buildings had queues outside them which were over an hour long.. People who had tickets could just walk into the theaters and take their seats, see the show and then walk out. This was where the design flaw occured. When a person walked out of the theatre, he walked into the ordinary exhibit area! Now, someone who has been queuing for an hour may not mind seeing people walking in and sitting down at the show, for a twenty-minute item. If the queue-jumpers have got ticekts, this is all right. But to see this same person effectively barge through the queue AFTER the twenty-minute show and beat the queue into the exhibit ...!

So Reservexpo didn't work at that end either.

The Cover Up

When "Reservexpo" was not working on the booth end or on the Pavilion end, it was abandoned half way through the Expo. A cover-up system of graceful degradation was used to hide the size of the fiasco. It was suggested that Reservexpo be used for bookings of particular parties only. However, in fact this never worked either

Computer Worked

Again, the snags did not lie in the programming. The snags lay in the appreciation by the systems engineers, as to the effects of crowds on the system. The present alibi is that the system was impossible to implement because of the number of people who attended the fair. This overlooks the human equations when there was going to be a scarcity of seats, with so few exhibitors in the system prepared to join it. And it overlooks the design flaw in the pavilions.

"Reservexpo" then is another case where the human factors engineering didn't work although the computer systems did.

Operations Control

The third area of Operations Control can perhaps be cited as one of the worst. This is a matter of opinion. Reservexpo failed in its purpose, while Operations Control made the computers a laughingstock. In the picture you can see the focus of the main bug. The turnstiles themselves. Well away from the computer systems, turnstiles had counters on them. These worked and anyone

CONTINUED ON PAGE 6

CEIR -CDC Merger Comes Closer

Sept. 20 – The proposed acquisition of C-E-I-R, Inc. by Control Data Corporation through the tax-free exchange of one share of Control Data common stock for each six shares of C-E-I-R stock has been approved by the boards of directors of both companies.

The boards' action was announced jointly this afternoon by William C. Norris, chairman and president of Control Data, and Dr. Herbert W. Robinson, chairman and president of C-E-I-R, immediately following a special meeting of the C-E-I-R board.

Both boards approved a draft agreement and empowered the presidents of the two companies to negotiate a final contract which will be subject to approval by C-E-I-R shareholders. The exchange of one share of Control Data for each six shares of C-E-I-R will be subject to a 10 per cent escrow to cover certain potential liabilities of C-E-I-R.

A special meeting of C-E-I-R's shareholders has been tentatively scheduled for November 15 in Washington, D.C., the headquarters for the applied research and computer services company. The affirmative vote of holders of at least two-thirds of C-E-I-R's total outstanding stock of 1,665,645 shares is required to approve the acquisition. No further action by the board of directors of either firm is required.

If C-E-I-R shareholders approve the acquisition proposal, C-E-I-R will continue to operate under its own name as a wholly-owned subsidiary of the Minneapolis-based computer manufacturer.

SLOWNESS DANGEROUS—

Says SEC Chairman

In a speech to the Hartford Chapter of the Association of Investment Brokers, Manuel F. Cohen, Chairman of the Securities and Exchange Commission, stressed the need for speeding up automation in the securities industry. Despite the substantial progress that has been made, the SEC Chairman observed that "a much faster pace" will be needed to maintain the rate of growth achieved by the industry in the last twenty years. "We are already pushing to the danger point the ability of the Exchange and its members to handle an accelerating volume of trading by antiquated manual methods or a hesitant and limited use of a computer technology and recent communications developments," Cohen said.

Cohen called attention to the 900 character–a–minute electronic tape reporting system installed by the New York Stock Exchange only three years ago. He warned that the system has "already passed the danger point" and may be obsolete.

He called for a less leisurely approach to the implementation of advances being made in the field of electronic data processing.

"THE COMPUTER SALESMAN"
...Watch For It In
Computerworld.

9000 Group Hears Of Successful Conversions

Univac Users Joint Meeting

Guest speakers and officers have a chat before the opening general session at the joint conference of the Univac Users Association and the Univac Scientific Exchange, held in Minneapolis' Leamington Hotel last week (Sept. 19–22). Left to right: James S. Nelson, U. S. Gypsum, president of UUA; Harold W. Greenwood Jr., vice president, Midwest Federal Savings and Loan Association, hosts for the Conference; Earl T. Boone, duPont, president of USE; Takeshi Kato, Toho Gas Company Ltd., Tokyo, Japan; and keynote speaker Paul V. Grambsch, dean, School of Business Administration, University of Minnesota.

MINNEAPOLIS. Sept 22. More than 600 data processing executives, representing the nation's leading corporations, universities and government agencies attended the fall joint conference of the Univac Users Association (UUA) and the Univac Scientific Exchange (USE) which closed here today. Delegations were also present from Canada, France, England, Sweden and Czecho-Slovakia.

Many users expressed their approval of the well planned workshop and tutorial sessions as well as the outstanding quality of the guest speakers on the program. The general consensus appeared to be that this was the most beneficial conference ever held.

The keynote address was given by Dean Paul Grambsch of the School of Business Administration, University of Minnesota. Grambsch described his early interest in computer technology and outlined a long list of measures users should take for advancing the art of data processing.

Two substitutes served as speakers at the Standards seminar - Robert Roundtree, assistant director for Computer Sciences and Technology, National Bureau of Standards, and Nathaniel Stone, assistant director of Standards, Business Equipment Manufacturers Association. Remarks from both speakers drew a barrage of questions from the floor, and both gentlemen fielded them excellently.

WORKING SESSIONS

A few highlights on USE working group sessions were when Stan Leeb, Univac Systems Programming, gave a status presentation of conversational FORTRAN. When Dr. Nicholas DiCianni, Data Processing Center, University of Notre Dame, described an "In-core FORTRAN Compiler" developed at that Univac 1107 installation. When Miss Elizabeth North, U. S. Bureau of the Census gave a detailed description of applications and operations for the Bureau's two Univac 1107's.

UUA computer-oriented workshop sessions were generally outstanding. Most newsworthy were the UNIVAC 1050 group and the UNIVAC 9000 series group.

1050 GROUP

At the 1050 session, James Walsh, manager data processing. CBS Television Network and a team of three members gave an excellent presentation on the FREEDA (Free Data) system devised by them to cover all network operations, including time-sales, equipment availability, billing for programs and many others.

BACKGROUND

The UNIVAC Users Association is an organization of companies utilizing computers manufactured by the UNIVAC Division, Sperry Rand Corporation. The purpose of the Association is to stimulate the development of data processing techniques for UNIVAC systems in particular and advance the art of electronic information processing through mutual education and interchange of ideas.

The Association was organized and is run by users, with the UNIVAC Division providing an Executive Secretary.

The UNIVAC Scientific Exchange was organized in December, 1955 to establish standards to facilitate the exchange of technological information primarily relating to scientific applications among users of the UNIVAC 1100 series systems, as well as an interchange with the UNIVAC Division. With the introduction of the UNIVAC 1107 and the UNIVAC 1108 the areas of application broadened as a result of the more generalized nature of these systems.

9000 GROUP

The newly organized 9000 group workshop sessions attracted an average attendance of 65.

Adam Milewski, president M & S Computer Services, Chicago, discussed his experience in converting approximately two hundred programs from competitive equipment to his recently delivered system - UNIVAC 9200/1001. He reported that he had a minimum of trouble, was "On the air" in record time and had high praise for the new equipment.

At the same 9000 series of sessions, Joshua Shorr, Lybrand, Ross Bros. and Montgomery reported that his firm has developed a generalized information retrieval program with 40 parameters for handling one of their major applications.

Users were visibly impressed with what they saw on plant tours of the UNIVAC Roseville facilities yesterday. Virtually every user attending the Conference made the trip.

James S. Nelson, U.S. Gypsum, Chicago, is the new president of UUA following the recent resignation of Murray Hepple.

The next joint conference has been scheduled March 12-15 to be held in Philadelphia's Benjamin Franklin Hotel.

Preliminary Moves In Fortran Fight Continue

The preliminary moves in the fight to preserve the FORTRAN language from threatened oblivion at the hands of IBM's favorite PL/1 appeared to be developing this week. In a number of separated areas, users were gathering to press forward with the development of the language and of its compilers.

In Philadelphia, for instance, the Honeywell Special Interest Group on FORTRAN was canvassing its membership to prepare for a forthcoming meeting with Honeywell, at which time that corporation will be asked to define its position. In Salt Lake City, the SHARE BOS committee was planning its strategy to force IBM to provide presently unavailable compilers. In Minneapolis, the IBM Language Strategy announcement with regard to FORTRAN (exclusively reported in COMPUTERWORLD's August 30 issue) was a major source of conversation among the users of Univac's advanced FORTRAN V system.

Particular interest was paid to the implications of a British test of users' opinions of PL/1. The test indicated that, contrary to original expectations, technical people were having more trouble with PL/1 than business people! On the test, 73% of technical people reported that they had difficulty in debugging PL/1 programs. while only 27% of commercially-oriented programmers reported difficulty.

Attention was also directed to small users, and their position under PL/1. The difficulties presently being experienced with the sub-set of PL/1 now available under the Disk Operating Systems were being watched carefully. On the one hand, if these difficulties prove to be simply due to unfamiliarity; they will not be important. If, on the other hand, they turn out to be difficulties in handling the sub-set language, they could have a decisive role to play in the effort to roll back the potential of PL/1 to become a de facto standard by IBM's fiat.

The other computer manufacturers – who have perhaps the greatest amount to lose in the situation – have conspicuously little to say. The action appears to be coming from the grass roots as the user begins to clarify his position and wishes.

On the problem of the software, it appears that by using the reverse slash and then a digit (like the /1) as part of the hollerith message that any compiler that can effectively reach teletype and/or other display equivalents, can, in fact, have the color coding inserted right into the message. This would avoid the need to use assembly language.

COLOR DISPLAYS: Some Further Comments

COMPUTERWORLD'S reporter, talking to people who saw the FORD-PHILCO color display units in Houston at the preview showing, finds that interest is in the area of executive displays. Other areas, it is thought, have not yet had a need for color proved. The executive display, however, has to be a selling job in any case, and here a solid case can be made.

Physically, the participants were impressed by the appearance of the unit and of the circuit cards. These were not heavily packed (only twenty-five to forty IC's per card) and seemed quite simple to service. The size of the screen (15 inches) allowed the phosphor particles to be of an effective density so that the character had a good resolution. The character coding logic itself took up only three or four cards, and PHILCO-FORD said that they would be perfectly happy to take Chinese-if anyone really wanted it. The lack of a hard-copy equivalent or partner to the displays was noted as a potential disadvantage to these particular units and it appeared that no immediate work was in process in this area

Members of the audience who were familiar with the aerospace center in Houston, recognized the unit as being well within the capability of the PHILCO-FORD units presently in operation in the center. The fact that they were not foning the state-of-the-art to manufacture these units suggested that the serviceability (although not yet proved) could be expected to be good.

All in all the audience saw no great revolution, and felt that the units had a very definite, but presently minor role to play. The energy of PHILCO-FORD in producing salesmen to sell the units-and work out the necessary advantages to the buyers seemed to be the major limitation on the speed with which the market will spread.

BULLETIN BOARD

SAN MATEO,CALIF.Sept. 19 -- URS Corporation has been awarded a $390,000 two-year contract for work on the Army's Ground Combat Simulator program at Ft. Leavenworth, Kansas. The contract, awarded by the U.S.Army Combat Development Command, Communications - Electronics Agency, calls for continuation of the development of a fully computerized simulator system for comparative evaluation of signal communications systems for the army in the field.

URS Corporation is establishing a field office in Kansas City, Missouri, headed by Project Manager Robert Danser at which work on the new project will be coordinated.

NEW YORK, N.Y., Sept. 22 -- Lone Star Cement Company, one of the nation's largest producers of cement and allied products, has ordered a UNIVAC 418 Computer system and associated equipment from Sperry Rand Corporation's UNIVAC Division. The computer will be installed in the company's New York headquarters and connected to eight UNIVAC DCT-2000 Data Communications Terminals located in offices of divisions and wholly owned subsidiaries. Delivery of the system is scheduled for January 1968.

GALESBURG, ILL. – Knox College will establish a Computer Center this fall to serve both academic and administrative needs. The new facility will enable faculty and students to move into a higher level of course work and research potential. The center will also serve the Office of Institutional Research, the business, admissions, and alumni relations offices, as well as other administrative departments.

Installation of an IBM 1130, to be used for teaching and research purposes, and an IBM 1401, primarily for administrative use, has been completed. Each computer has its own card read punch, printer and other supplementary equipment. One of the first uses of the IBM 1130 will be in a new curriculum, the interdisciplinary major in computer sciences.

PLAINVIEW, N.Y., Sept. 21 – Hughes Aircraft Company has signed a preliminary agreement for the purchase of more than $1.3 million worth of SC-1131 military single-capstan magnetic tape transports from Potter Instrument Company, Inc. The tape transports are slated for use in the Air Force Electronic Systems Division's 407L Tactical Air Control System. The 407L TACS is developing a group of lightweight, highly transportable radars, aircraft control towers, navigational aids and a complete line of portable solid-state, miniaturized radio equipment for use by Air Force tactical units.

BLUEFIELD, W. VA., Sept. 21 -- Plans to install a major new computer to control distribution of replacement parts for heavy construction equipment have been disclosed by Bluefield Supply Co. Company president J. Taylor Frazier said the computer will be installed before the end of the year.

The company, which through its Rish Equipment subsidiary is the largest U.S. dealer of International Harvester construction equipment, will install an IBM System/360 Model 30 to provide up-to-the-minute reports on availability of parts at all Rish distributor locations.

PARIS, FRANCE, Sept. 20 -- A UNIVAC 1108 Computer System has been supplied to the University of Paris, by Sperry Rand Corporation's UNIVAC division. Under the management of the Laboratory for Theoretical Physics and High Energy, the computer, valued at more than $2.5 million, has been installed at the Orsay branch of the University, located 20 miles south of Paris.

Among the applications for the UNIVAC 1108 System will be analysis of spark and bubble chamber data and research in elementary particle, physics, statistical mechanics, nuclear physics, solid state physics, crystallography, geophysics, optics, physical chemistry, vegetal biology, and anthropology.

The University of Paris is the first educational institution in Europe to install a UNIVAC 1108 System. The System includes a central processor with a 65,000 word core memory, seven FH-432 magnetic drums, one FASTRAND mass memory storage device, ten UNISERVO magnetic tape units, two UNIVAC 1004 Card Processors, two high-speed printers, a card reader, a card punch and a communications subsystem.

NASHUA, N.H., Sept. 15 – Sanders Associates, Inc. has received a contract in the amount of $2 million from the Government of Pakistan for integrated communications systems that will increase considerably the country's telephone and telegraph service.

The contract is financed under an AID loan and was awarded by the Pakistan Telephone & Telegraph Department. Sanders will add 10 international circuits, and five domestic radio circuits which serve as trunk lines between East and West Pakistan, separated by approximately 1,200 miles. Sanders will train Pakistan technicians to operate the advanced equipment.

STC OPENS NEW DIVISION IN ST. LOUIS

Statistical Tabulating Corporation, has opened a CAM (Computer Advisors to Management) division in St. Louis, Missouri.

CAM is a professional consultation and service organization dedicated to helping management make executive decisions in selection of data processing equipment.

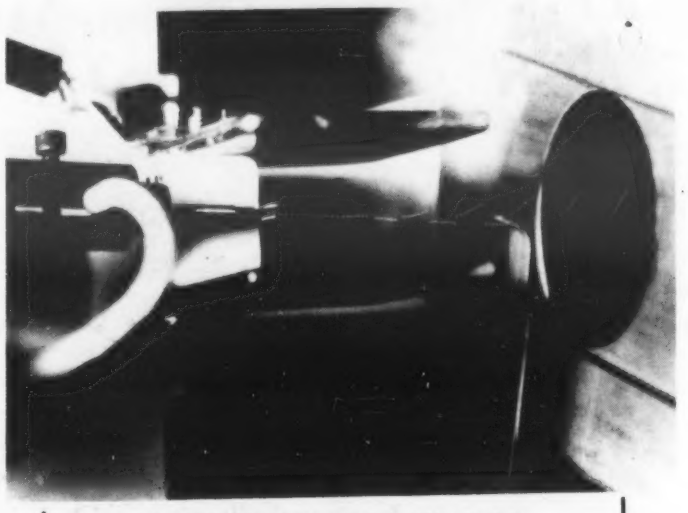
Jovial To Be AF C&C Standard

SANTA MONICA, CALIF.Sept. 22-- Adoption of JOVIAL (J3) as the Standard Programming Language for the Air Force command and control applications has been announced by the Air Force's Directorate of Command Control and Communications.

JOVIAL, a machine-independent, general-purpose programming language developed by System Development Corporation (SDC), will be used as a standard only for new Air Force command and control systems. Adoption of the language does not mean existing systems must be reprogrammed to meet the JOVIAL standard, an Air Force spokesman pointed out.

In adopting JOVIAL (J3), the Air Force also established standard specifications for the development of compilers, and established a means of updating the language and specifications to incorporate future developments in programming languages that may be used in command and control applications. As a common programming language, JOVIAL serves both as a means of communicating information processing methods between people and as a means of realizing a stated process on a number of different computers.

JOVIAL, developed by SDC in 1958 for use by the Air Force in the SAGE (Semi-Automatic Ground Environment) air defense system and other large-scale command/control systems, is an acronym standing for Jules Own Version of the International Algebraic Language. The language is also used by other branches of the armed services, and has had numerous civilian applications as well.



INK-JET PRINTER WINS 'I. R 100' AWARD

High-speed photograph shows charged particles of fluorescent ink deflecting upward as they move through electrical field of Recognition Equipment Incorporated's new Ink-Jet Printer, which has been selected by Industrial Research magazine's annual 'I. R 100' Competition as one of the 100 most significant new technical products of the year.
The Printer, which has no moving parts, prints coded information on paper documents at speeds up to 90,000 characters per minute and eliminates the problems frequently associated with high-speed mechanical printing devices.

Mohawk Transmission Units Continue Good Service

Early User Happy After Over 15 Mos Experience

HERKEIMER NY SEPT. 14.

The first major use of the Mohawk Data Transmission terminals was put into operation in June 1966 with an insurance firm - Chubb and Son Inc. of Short Hills N.J. The operation involves offices in San Francisco, Chicago, Minneapolis and other areas and currently Mohawk is completing the installation of thirty Data-Recorders which prepare the data for transmission.

Dick Sargent, DP Manager at Chubb, told Computerworld this week that he was very satisfied with the performance of the Mohawk equipment. Despite the fact that their installation had been a pioneer (which is often not a safe thing to be) they continued happy relationships with Mohawk, and were planning spreading the network to Montreal later this year; and to install a further 25 data recorders.

Both the data-recorder and the electronic data transmission are replacing the former system of key punching, verifying and mailing information Chubb & Son's computer center in New Jersey. Chubb & Son utilizes Mohawk 1101 equipment to capture all necessary statistical information from source documents and transcribes it directly to computer magnetic tape at the local level. Information is then transmitted via the Mohawk 1103 directly to the home office. A highlight of the system is the "exception error report" each branch receives daily. All incoming records are examined by the computer for validity and rejected if in error. These rejected items are then transmitted back by wire to each branch and printed out on the Mohawk 1118 Printer for correction and re-transmission.

Benefits are reduced operating costs through faster, more efficient handling of all information with minimum computer systems changes, ultimately providing the base for better service to their insureds.

Plans for 1967 include the replacement of 80 percent of their key punch machines with Mohawk Data-Recorders at their computer center in Short Hills, 51 Kennedy Parkway, New Jersey.

G.K. Introduces New High-Speed Tape Cleaner

Full Reel Of Tape In 4.8 Mins!

ARLINGTON, VA., Sept. 5 --General Kinetics Incorporated announced its new Model 680 High Speed Magnetic Tape Cleaner today.

The GKI Model 680 High SpeedW3 Magnetic Tape Cleaner is capable ofW2 cleaning ½", ¾", and 1" wide magnetic tapes on all standard computer and instrumentation reels up to 14"/n diameter. The fully automatic forward and reverse pass cleaning cycle completely cleans a '2400' reel of IBM ½" computer tape in 4.8 minutes.

The Model 680 employs GKI's proprietary self-sharpening cleaning blade system in which the cleaning blade does not require changing and is guaranteed for the life of the machine. In addition to the cleaning blade action, both the, front and back of the tape are continuously wiped by means of special, lint-free rolls of wiping tissue which are automatically advanced to present a continuously renewed cleaning surface while the tape is in motion.

The tape drive employs a printed circuit motor, twin capstan drive system which allows establishing the optimum tension for cleaning and the proper precision winding action is provided through the use of a GKI proprietary precision guiding system which resets the guide positions automatically to minimize any possiblity of tape damage during unwinding of a roughly wound roll coming from the computer and in rewinding the roll as the cleaning cycle is completed. The Model 680 Cleaner is equipped with fail-safe reel brakes designed to prevent accidental spilling of tape in the event of a power failure.

Subscribe To Computerworld!

See fom on Back Cover

MICR Unit

CONTINUED FROM PAGE 1

Monthly rental for the 1259 when used with the Model 20 is $1,100 and the purchase price is $49,500. In Model 30 and 40 installations, the unit rents for $1,400, with a purchase price of $63,000.

Other reader/sorters offered by IBM for banking applications include the 1412 and the 1419 magnetic character reader. These higher speed units process checks at rates of up to 950 and rent for $2,000 and $2,275 a month, respectively.

Deliveries of the 1259 to Model 20 customers are scheduled to begin in the first quarter of 1969.

The 1259 will be manufactured to IBM specifications by Lundy Electronics & Systems, Inc., Glen Head, N. Y.

ANOTHER GOOD HANDBOOK

HANDBOOK OF NUMERICAL METHODS AND APPLICATIONS – *Author: Louis G. Kelly, Addison-Wesley Publishing Company, Inc.; 354 pp., 26 illus.; $14.50.*

This volume is designed as a handbook and reference for engineers and scientists programming their own problems, and for programmers and computing center personnel working with scientists and engineers. It can also be used as a text when accompanied by appropriate lectures. The book provides a number of practical applications of special interest, much of this material being available elsewhere only in books of an engineering nature. In addition, a large part of the coverage provided on numerical methods can be found only in many different books on numerical analysis. Topics in basic numerical methods are augmented by special topics of interest. References to other sources of material are provided in a bibliography as well as in the running text and at the end of chapters.

The text of each chapter normally offers the reader in the space of a few pages the major techniques, and summarizes the differences between them, the advantages and the disadvantages of each. The chapters can be read independently or used as a quick reference book as desired.

The computer itself is not directly involved except in one chapter - 24, This deals with the problem of selecting the most economic method of computation which provides the necessary accuracy. Emphasis is given to the 1961 paper on Direct Search by Hook and Jeeves.

Other chapters deal, in the space of a few pages, with the following subjects: Finite and Divided Differences, Basic Interpolating and Approximating Polynomials, Differentiation and Integration, Curve Fitting and Data Smoothing, Nonlinear Alegbraic Equations, Matrix Algebra and Operations, Linear Algebraic Equations, Eigenvalues and Eigenvectors, Scaling of Matrices, Introduction to Complex Variables, Introduction to the Laplace Transform, Difference Equations, Ordinary Differential Equations, Transfer Function Computations, Partial Differential Equations, Harmonic Analysis, Special Functions and Integrals, Sampled Data and Digital Filtering, Numerical Solution of Integral Equations, Numerical Solution of Vibration Problems, Padé Approximation to a Function, Gram-Schmidt Orthogonalization Procedure, Elementary Statistics.

Specifications & Price Data On MAI Drives

The technical specifications of the drives are shown in Table 1. The difference between the MAI drives and the IBM ones which they are designed to replace is most clearly shown in the tape path.

In the IBM drive the tape transport assembly, with the drive capstans and the prolay assemblies, is positioned over both vacuum columns. This gives a symmetrical appearance, and involves the use of twelve magnets, (two stop, two start, and two neutral ones on either side) four capstans and various idlers.

In the MAI drive the tape transport assembly is mounted vertically between (not over) the vacuum tubes, and uses only a single capstan, so eliminating all mechanical adjustments. This position allows the recording surface of the tape to be kept out of contact with the sides of the vacuum columns, and of the tape guides.

WARRANTY

MAI is offering a warranty with the tape units which seems adequate to protect a buyer. The phrasing is as follows: "that each MAI Unit represented herein as being plug-to-plug interchangeable with a type and model of IBM Unit is compatible with all IBM systems with which such IBM Unit is compatible."

PRICE

See Table 2.

SPECIFICATIONS

	7200 SERIES		2400 SERIES	
TAPE DRIVE	Single Capstan		Single Capstan	
NUMBER OF TRACKS	7		7 or 9	
DENSITY	200, 556, 800 bpi		200, 556, 800 or 800 bpi	
METHOD OF RECORDING	NRZI		NRZI	
TAPE SPEED	75, 112.5 ips		75, 112.5 ips	
DATA RATE/SEC.	15,000 to 90,000		15,000 to 90,000	
	75 ips	112.5 ips	75 ips	112.5 ips
START TIME	5 ms	4 ms	5 ms	4 ms
STOP TIME	5 ms	4 ms	5 ms	4 ms
AVERAGE REWIND TIME (2400 ft. reel)	130 sec.	100 sec.	130 sec.	100 sec.
TAPE WIDTH	½"		½"	
TAPE TYPE	1.5 Mil Mylar		1.5 Mil Mylar	
TAPE REELS	10 ½ inch diameter IBM Type			
REEL HUBS	IBM-Compatible, positive locking			
INTER RECORD GAP	.75 in.		.6 in. or .75 in.	
CONNECTION	Interchangeable with 729 models IV, V and VI		Interchangeable with 2401-2402 Models 2 and 3	

Note: Plug to Plug & Reel to Reel Interchangeable

UPGRADE CAPABILITIES

The 7200 series of MAI units can be upgraded to the MAI 2400's. That is to say that a present user of IBM 729 units who is thinking of moving to a 360 system can buy an MAI drive, use it on his present system and then, when the time comes, have it upgraded and use it on an IBM 360.

	PURCHASE PRICES		MIN MAINTENANCE		
	IBM	MAI equiv.	IBM	MAI equiv.	
729s					
Md IV	41,250	17,700	114	89	Per Month
Md V	37,200	16,000	108	85	"
Md VI	42,450	18,000	119	90	
2400s					
Md 2	22,700	16,000	70	65	"
Md 3	36,760	21,700	86	80	"

Table 2 Comparative Purchase Rental Figures

Some Of General Electric's Facilities Pictured Above.

GE Enters CONTINUED FROM PAGE 1

GE, in providing these services is relying on its background in heavy-equipment servicing. "We are used to acting quickly when a part goes down", Frank Kopetsky, Manager of Market Sales Development told COMPUTERWORLD. "We can provide 24 hour service because we know what is wanted. If a whole plant comes to a halt because of a problem (and that is what we are used to) you have to do something. We are set up for it."

Mr. Kopetsky went on to comment about the present servicing methods used in the computer industry. "They are uneconomic", he said. "Typically, the customer service engineer is a highly trained fellow who still has to spend two to three months back in school every ear. But much of the equipment does not change - much of it needs a good electro-mechanical serviceman only. Why pay for an electronic technician when you don't have to?"

The basis of the new service will be the sixty-one plants already in operation in G.E.

Share BOS Committee Presses DOS Resolutions

The SHARE BOS Committee – which really is dealing with DOS more than with anything else – has taken on a new activity under the chairmanship of Robert Duncan, Kennecott Copper, Salt Lake City. For the first time it has prepared a set of resolutions to IBM which will be presented at Endicott during next week.

FORTRAN NEED STRESSED

One resolution, which is considered of very high priority, will not be presented. The resolution calls for further FORTRAN compilers which are needed to support the medium-scale systems. The present situation in the FORTRAN area is thought by the committee to be so urgent that this resolution is being handled through the SHARE executive board, rather than through the committee directly.

No priority has yet been placed on the other resolutions, but prompt replies to them are being requested in order that the December meeting of the SHARE committee can consider and react to them.

If your installation has an interest in the problems involved, the committee chairman would like to hear from you.

His address is:

Robert Duncan
Kennecott Copper Corporation
Scientific & Engineering
Computer Center
1356 Kennecott Building
Salt Lake City, Utah 84111

Our Cover Story

The LADY and The NAVY

Sept. 21 – Dr. Grace Hopper, one of the all-time greats of the computer industry, said today that COBOL at last is coming into its own. She was attending the Univac Users' Meeting in Minneapolis at the time – and talked about the changes which have occurred in the last year or so. "The question is no longer whether COBOL is the way," she said, "but now has changed so that it reads: 'What is the way to use COBOL?' "

Expanding on the subject, she explained that merely providing a standard is quite inadequate. Before a system can come into profitable use, user manuals have to be provided, "not just cribbed straight from the standard definition – but real USER instruction manuals. Brochures, operators' manuals, training courses for all the various people involved, documentation – all this type of thing has to come into play."

Dr. Hopper – or Commander Hopper as she should probably be properly called – is particularly interested in the details of getting COBOL into operation at the moment, as she has been recalled by the Navy for six months to do just that. She is now half way through her service, which is in the office of Norman Ream, presently Special Assistant to the Secretary of the Navy, and formerly Director of the National Bureau of Standards Computation Laboratory.

FINANCIAL MATTERS

HOUSTON, TEXAS, Sept. 14 – The National Aeronautics and Space Administration has awarded a one-year $47 million contract to Federal Electric Corporation, International Telephone and Telegraph Corporation's worldwide service associate, for support services at the Manned Spacecraft Center here.

The ITT company will provide technical writing, editing, report preparation and reproduction, test procedure documentation, data storage and retrieval, microfilming, graphic arts and logistics support.

The Data Processing Financial & General Corporation reported earnings after provision for income taxes were more than 2½ times last year's earnings, rising to $1,727,459 from $694,943 for the year ending May 31, 1966. Gross revenues more than doubled, rising to $4,774,592 from $2,278,064 in fiscal 1966.

The Company continues to save $12 million raised in debentures primarily in the purchase of new IBM computer systems.

ANAHEIM, CALIFORNIA, SEPT. 14, 1967---California Computer Products, Inc. has agreed to purchase 50% interest in Trans Mask Corporation, Downey, California, for an undisclosed cash consideration, with a 5 year option to buy the remaining 50% with CalComp common stock.

The transaction is subject to approval by cognizant regulatory agencies.

Trans Mask, which produces precision micro-photographic masks for use in the electronic integrated circuit and semiconductor industries, showed net earnings of $59,000 on sales of $289,000 for the fiscal year ended April 30, 1967.

NCR STOCK LISTED ON SWISS EXCHANGES

DAYTON, OHIO, Sept. 14 – Common stock of the National Cash Register Company worldwide producer of a wide variety of business equipment, has been accepted for listing and trading on the stock exchanges of Zurich, Basle, Geneva, Lausanne and Berne, Switzerland, NCR announced here today.

NCR stock had previously been listed exclusively on the New York Stock Exchange, where it has been traded since the company became a publicly owned corporation in 1926.

John J. Hangen, vice president of finance for the company, said the extension of trading in NCR stock to the European financial community reflects the increasingly global nature of NCR's operations and is designed to simplify trading in the stock outside the United States.

The Bugs Of Expo

CONTINUED FROM PAGE 2

from the local paper could quickly see how many people had been in the fair or through the fair merely by counting the counters. This they did.

By contrast, the computer was not connected to the turnstiles at all despite the press release's praises. The computer received its input from cards in the normal way. Once an hour the counters on the turnstiles were dumped onto cards at a central location. A duplicate set of counters was held at this location. Problems were posed during this hourly dumping process. It turned out that a special bushing was supposed to form a contact only once as each person moved through a turnstile. It therefore had a frequency of only one contact every ten seconds. However, a particularly muscular person could push it so it went through TWO contacts in well under a second.

This was a major flaw. If such a case occured (and it did occur) during the dumping procedure the card was wrecked - and so were the daily attendance figures!

Again, little was wrong with the program. The major problem was not in the computer, but was outside it in the engineering of the turnstiles, overtrumpeting of the capabilities of what is, after all, a limited system - a central computer.

The importance of the whole item, of course, was blown up out of all proportion. It was not like "Logexpo" which affected only those hundreds with inadequate accommodations, not like "Reservexpo" which affected ony the thousands who were unable to get their tickets, (and had the foolishness to stand around for an hour and half instead of going around the pavilions,) but instead it was known to all those millions of people within the reach of the press! No amount of public relations work was able to recover for computers a reasonable responsible, reputation.

Common Problems

What had these three areas in common? They had in common the fact that the computers worked, and they worked in the way they were intended to work. Programers programmed; operating systems operated; displays displayed, etc. But, the results were not as had been anticipated.

And the computer took the blame. This then, was the lesson on Expo 67 and its computers. Noticeably there were a number of successes. They, however, got the benefit of no publicity. The trains inside the fair ran magnificently, and free. Accounting machines handled the accounting systems. Operation Control computer did an invaluable job in many aspects. But for the majority of the world the computers were trumpeted a failure after being trumpeted a success.

Here, then, lies the prime bug in computer systems of Expo 67. The computers were humanly mis-respresented and misserved. This is perhaps the worst kind of bug to eradicate. A program bug and anyone will accept it to be a bug. A failure of understanding the effect of the system and its relationship to ordinary people can often be shrugged off by the technician as "not my problem" or "well, they should have expected it, shouldn't they?" And its being left at that. The lesson of Expo 67 is that management cannot leave it at that. They must pay more attention to the trumpeting qualities of the computer and to the human aspects. As computers move more and more into the realm of displays, real-time operations time-shared operations, etc., they are coming more and more into contact with the people. The problems of the coming decade are going to be much more with people. Recently we have seen that engineers characteristically, do not bother with the human factors. This can be a major stumbling block in any computer installation.

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FOR SALE

Used IBM panel boards 407 - $15 each; 402, 403 manual jack type - $12.50 each; 403 self contacting - $15.00 each; 085, 088, 519, etc. - $10.00 each; 548, etc. - $7.50 each. Also wires - used, excellent condition. Manual self-contacting or manual jack type in black - $1.50; yellow - $1.60; red - $1.70; blue - $1.85; green - $2; orange - $2.25; jack - $1.50; connectors - $1.80. Sold per bundle of 25 wires. Datronic Rental Corporation, 5210 Wesley Terrace, Chicago, Ill. 60656, Area 321 - 992 - 0760.

This Space

For Rent

WE BUY USED MAGNETIC TAPE

We need 500 reels of 800 BPI tape on reels with metal hub. Good quality 556 BPI would also be of interest. We clean and recertify the tape and our price depends on the quality of the tape. Drop us a note at Box 7051 COMPUTERWORLD.

IBM 029 KEY PUNCHES

Immed. delivery. Expanded keyboard. 64 ch. $90 per mo. on 6 mos. rentals. Call: 212-867-5661, Time Brokers, Inc.

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Our research staff collected and analyzed statistics on the world's top 100 computer users among manufacturing companies . . . developed a set of measurement ratios for each company . . . analyzed computer usage industry by industry. With the resulting EDP 100, in its easy-to-use format, you can compare your company's use of computers with that of others in your industry. It gives you another guideline in analyzing your installation.

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IDC International Data Corporation
355 Walnut St. Dept. 4-C
Newtonville, Massachusetts 02160

How To Hire-And How To FIRE!

Personal Page

BY EVERETT D. PARKER; PERSONAL PAGE EDITOR

("It is never easy to fire someone." That expression is so old it is probably inscribed on the walls of some ancient Egyptian ruin. But no matter if it is carved in hieroglyphics or stated in plain English, the hard, lumpy truth remains – *no one likes to fire or to be fired.)*

When you "fire" you terminate a man because he has not performed satisfactorily either within his job responsibilities or his personal attitude. The action is referred to as an involuntary termination in some companies. It has different titles but it means one thing – *an employee is asked to leave the company against his will.*

1) HIRE
2) OBJECTIVES OF JOB
3) CONSTANT REVIEW
4) WRITTEN/VERBAL EVALUATION
   - A) Personnel folder
   - B) Next management level
   - C) Employee (discretionary)
5) FINAL DECISION
   - A) Written
     - i.) Personnel folder
     - ii.) Next management level
   - B) Verbal
     - i.) Notice to employee
     - ii.) Written notes from conversation. Personnel folder

HIRE & FIRE

Hiring and firing are very closely related – a lot closer than we think. The manager must have a clear notion of the dimensions of the job for which he is hiring. Only when this is known, can he presume the competence to judge the man for the job. Once the choice is made a manager must do several things immediately. He must give his new employee a professionally adequate outline of his job responsibilities. The manager must make clear which responsibilities should take priority. The manager should also enlist the help of his staff to break in the new man and to insure a proper training period. Even well-experienced applicants need some training.

HOW TO MEASURE

Once a man has taken a job, he should be permitted to pursue the objectives of that job. If a manager has outlined the position in a simple and direct fashion, he should be able to respond to his new employee with useful and helpful direction. *There is no reason why a manager cannot give immediate measurement to the employee's performance.*

When a position has been clarified in writing, a manager is in a position to review his employee's work on a regular schedule – generally at three-month intervals. As the time elapses and projects get moving, the manager must stay alert to what kind of work – quality and quantity – is getting done. It's his accurate measurement of these items which makes a manager a good manager. If only in the form of a narrative, *a written evaluation of the man's work should be prepared and delivered at three levels – employee's personnel folder; the next management level; and, lastly, the employee himself.* (A manager should use discretion upon reviewing work performance with an employee. The written document is for management information. To put such documents into the hands of unreliable employee may not be wise.) The intent of such documents can be easily misunderstood and can create problems. Verbal notification to the employee is both legal and frequently sufficient.

SILENCE IS A CRIME

Besides a written notification a manager should give several verbal warnings against poor performance. *Silence can be golden; within employee discipline, it can be a crime.* If an employee is kept alert to his manager's demands and informed about his lack of adequate response, the employee has no reason to be surprised when his day of judgement arrives.

Constant review - written and spoken - will keep a manager honest and out of trouble. Constant review - written and spoken - will keep an employee informed and alert to his problems.

RIGHT & WRONG

A man can be fired for any number of reasons. The reasons generally fall into two categories: right and wrong ones. The primary reason for a man to be terminated against his will is his failure to meet the objectives of his assignment. Theoretically, if the man were well-selected, this would be the only reason for terminating him.

Another significant reason for firing someone is based on the attitude of the employee. A man's attitude can be such toward his manager, co-workers and/or customers that he does irreparable harm to the company's over-all goals even though he may be meeting the specific objectives of his position.

Personal faults are closely related to attitude, but are harder to control or sometimes even bring to the employee's attention. Among others, excessive daytime drinking, crass or vulgar language, unseemly behavior are adequate reasons for dismissal, after several warnings, of course.

MANAGER'S FAULT

When is it a manager's fault that someone gets fired? **Anytime** objectives are not made clear in written or spoken form; **anytime** a subordinate is blamed to cover up his manager's lack of ability, **anytime** a manager fails to give recognition - even to those whom he does not like: a manager is at fault.

Firing is a skill as difficult, but as available as all other management skills. A manager must acquire the ability to hire, direct and develop subordinates. A manager must also know how to fire. To fire someone without any prior indication of unsatisfactory work is reprehensible. Permitting a poor performer to continue on the company payroll is unjust. *The manager's task is to make the job assignment clear on the very first day and continue a scheduled review of the employee's performance.* If a manager manages well, he will have to fire very few. If he manages well, those whom he must fire will have sufficient knowledge of their status when the final day comes. A manager must hire, staff, direct and control his function. A manager must also fire those people who do not perform adequately or, after sufficient warning, show no signs of improving. A manager who knows how to hire well must also know how to fire well. The two are prerequisites for a good manager. Do you have them?

Send your comments to:
Everett D. Parker
COMPUTERWORLD
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Is Emanuel D. Parker The Problem?
Is Forum Fight Coming?
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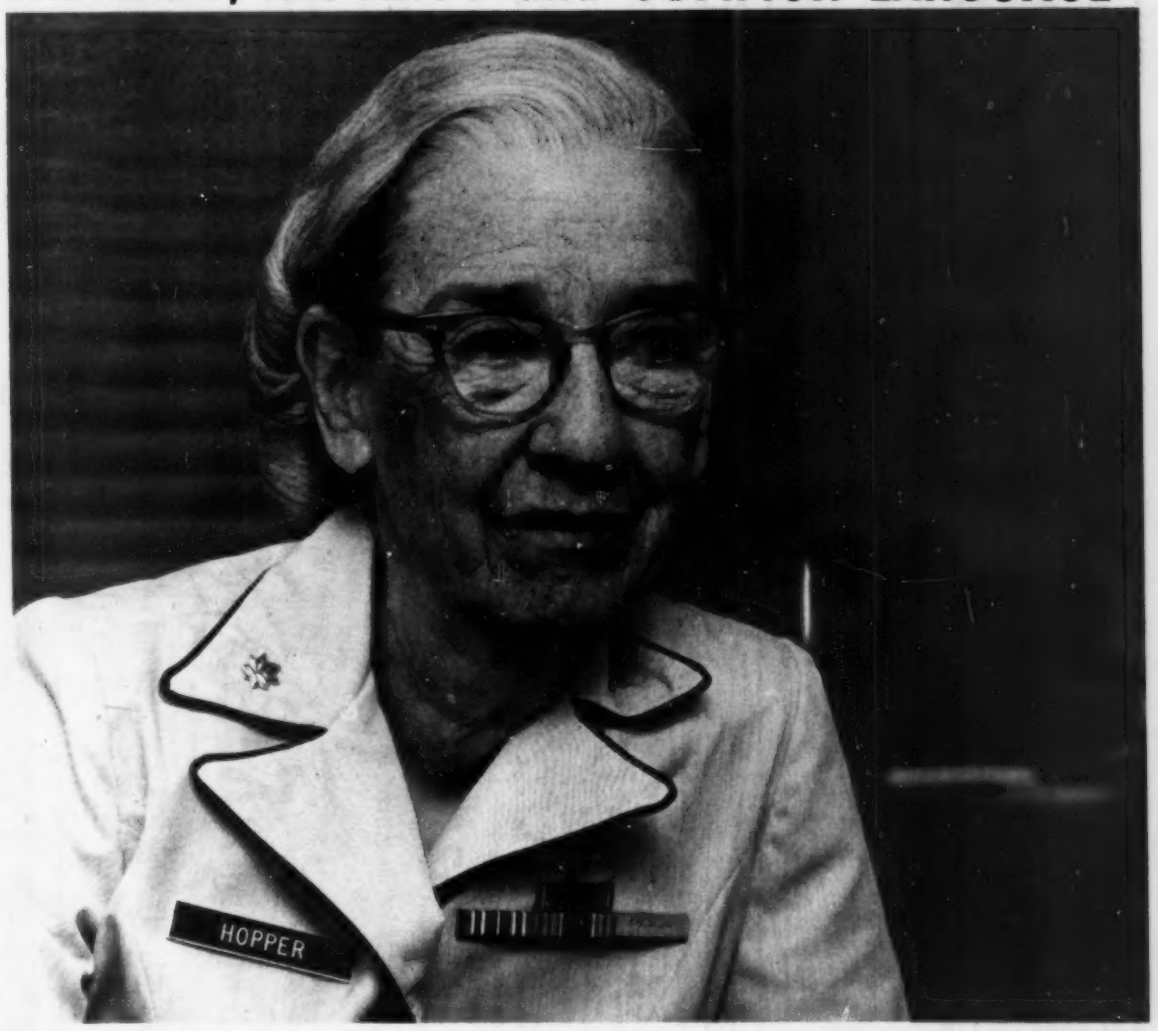

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